



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

| APPLICATION NO.  | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO.   | CONFIRMATION NO. |
|--|-------------|----------------------|-----------------------|------------------|
| 10/652,817   | 08/29/2003  | Jack T. Baker        | 9687-5 (37786-186516) | 2480             |
| 23973  | 7590        | 06/17/2004           | [REDACTED]            | EXAMINER         |
| DRINKER BIDDLE & REATH<br>ONE LOGAN SQUARE<br>18TH AND CHERRY STREETS<br>PHILADELPHIA, PA 19103-6996 |             |                      | [REDACTED]            | HALPERN, MARK    |
|  |             |                      | [REDACTED]            | ART UNIT         |
|  |             |                      |                       | PAPER NUMBER     |
|  |             |                      | 1731                  |                  |

DATE MAILED: 06/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

|                              |                 |                |  |
|------------------------------|-----------------|----------------|--|
| <b>Office Action Summary</b> | Application No. | Applicant(s)   |  |
|                              | 10/652,817      | BAKER, JACK T. |  |
|                              | Examiner        | Art Unit       |  |
|                              | Mark Halpern    | 1731           |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.

- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.

- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.

- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1) Responsive to communication(s) filed on \_\_\_\_\_.  
 2a) This action is FINAL.                    2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4) Claim(s) 1-26 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 1-26 is/are rejected.  
 7) Claim(s) \_\_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

|  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                     | Paper No(s)/Mail Date. _____ .  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ . | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
|  | 6) <input type="checkbox"/> Other: _____ .                                  |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

- 1) Claims 1-2, 7-15, 19-26, are rejected under 35 U.S.C. 102(b) as being anticipated by Prough (5,547,546).

Claims 1-2, 9-10, 13-15, 22-23, 26: Prough discloses a continuous digester system (Figure 1) that includes a chip bin 10 into which chips are introduced through the top inlet 31 and are discharged through the bottom outlet 32 to a digester. The lower part of the bin is tapered. Steam is introduced into the bin through downwardly angled pipe 22 and upwardly angled pipe 28 located in the lower part of the bin. Temperature sensor probe 25 located within the bin is disclosed (Abstract, col. 1, lines 43-54, col. 5, lines 29-44 and Figure 1). Black liquor from the digester is introduced to the bin (col. 5, lines 1-9).

Claims 7, 11-12, 20, 24-25: temperature sensor within the bin is disclosed. Flow sensors and level controllers are disclosed. The controllers are interlocked with the steam application (col. 5, line 29 to col. 6, line 68).

Claims 8, 21: black liquor from the digester is introduced to the bin (col. 5, lines 1-9).

Claim 19: each of the two levels where steam is introduced, as shown in Figure 1, represents a treatment zone.

2) Claims 1, 4, 6, are rejected under 35 U.S.C. 102(b) as being anticipated by Johanson (5,454,490).

Claims 1, 4; Johanson discloses an upright cylindrical vessel, a bin 17, that includes a top 18 and a bottom 19 and a generally vertical interior wall 20. Wood chips are deposited into the bin from the top 18, and discharged from the bottom of the bin. Steam is added to the by means of inlet lines 25 and 26. Within the bin are conical frustums 24 projecting from the interior wall 20 (col. 3, line 46 to col. 4, line 64, and Figures 1, 5).

Claim 6: each of the four levels where steam is introduced, as shown in Figure 3, represents a treatment zone.

#### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3) Claims 4-5, 17-19, are rejected under 35 U.S.C. 103(a) as being unpatentable over Prough in view of Johanson.

Claims 4, 17: Prough is applied as above for claim 1, 14, Prough fails to disclose that the chip bin further includes conical baffles projecting from a wall of the bin.

Johanson discloses a bin 17 for accepting wood chips and wherein said bin are conical frustums 24 projecting from the interior wall 20 (Johanson, col. 3, line 46 to col. 4, line 64, and Figures 1, 5). It would have been obvious, to one skilled in the art at the time the invention was made, to combine the teachings of Prough and Johanson because such a combination would reduce the compression of the wood chips in the bin of Prough as disclosed by Johanson (Abstract).

Claims 5, 18: exhaust pipe is disclosed by Prough (Figure 1).

Claim 19: each of the four levels where steam is introduced, as shown in Figure 3 of Johanson, represents a treatment zone.

4) Claims 3, 16, are rejected under 35 U.S.C. 103(a) as being unpatentable over Prough in view of Leask (3,661,328). Prough is applied as above for claim 1, 14, Prough fails to disclose that the chip bin comprises steam orifices angled tangentially. Leask discloses chip bin 10 into which steam is introduced tangentially from cyclone separator 44 (Leask, col. 3, lines 32-54 and Figure 1). It would have been obvious, to one skilled in the art at the time the invention was made, to combine the teachings of Prough and Leask, because such a combination would improve the distribution of wood chips in the bin of Prough due to the tangential steam flow of Leask.

### ***Conclusion***

5) Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark Halpern whose telephone number is 571-272-1190. The examiner can normally be reached on Monday to Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Griffin can be reached on 571-272-1189. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Mark Halpern  
Patent Examiner  
Art Unit 1731